

acidic compound in a continuous process. An amount of more than 1 mol per mol of the acidic compound is not identical to an amount of about 0.3 mol or less per mol of the acidic compound.

Thus, Claim 1 of the present application is novel over Hunt et al.

Claims 2 and 4 depend, directly or indirectly, on Claim 1. Therefore, Applicants respectfully submit that Claims 2 and 4 are patentable over Hunt et al. for at least the same reason as Claim 1.

Additionally, Claims 1 - 3 have been rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by GB 1,166,961.

Applicants respectfully traverse this rejection for the following reasons.

Similar to the case with Hunt et al., GB 1,166,961 is relied upon to teach a process where a base is in excess of an acid. However, in the present claimed invention, a basic compound is used in an amount of about 0.3 mol or less per mol of an acidic compound.

Example 1 of GB 1,166,961 discloses a molar ratio different from where a basic compound is used in an amount of about 0.3 mol or less per mol of an acidic compound.

Example 1 of GB 1,166,961 discloses that “[a]fter the solution had been cooled sufficiently, 1.8 g of a catalyst consisting of 40 wt. % of pyridine and 60 wt. % of acetic acid was charged thereto” (page 4, lines 107 - 110). The molecular weight of pyridine is 79 g/mol. The molecular weight of acetic acid is 60 g/mol. Accordingly, Example 1 of GB 1,166,961 discloses that 0.0091 mol of pyridine is present in the catalyst thereof and that 0.018 mol of acetic acid is present in the catalyst thereof. The amount of pyridine was calculated as follows:

$$\frac{(\text{total weight of catalyst}) \times (\text{wt. \% of pyridine})}{\text{molecular weight of pyridine}} = \text{amount of pyridine}$$
$$\frac{(1.8 \text{ g}) \times (40 \text{ wt. \%})}{79 \text{ g/mol}} = 0.0091 \text{ mol}$$

Similarly, the amount of acetic acid was calculated as follows:

$$\frac{(\text{total weight of catalyst}) \times (\text{wt. \% of acetic acid})}{\text{molecular weight of acetic acid}} = \text{amount of acetic acid}$$
$$\frac{(1.8 \text{ g}) \times (60 \text{ wt. \%})}{60 \text{ g/mol}} = 0.018 \text{ mol}$$

In this regard, the molar ratio of pyridine to acetic acid in the solution thereof is 0.0091 to 0.018, or, in more simpler terms, 0.51 to 1. Based on this molar ratio, it follows that Example 1 of GB 1,166,961 teaches that its pyridine is used in amount of 0.51 mol per mol of acetic acid. An amount of pyridine at 0.51 mol per mol of acetic acid is distinct from where a basic compound is used in an amount of about 0.3 mol or less per mol of an acidic compound. Thus, Claim 1 of the present application is novel over GB 1,166,961.

Claims 2 - 3 depend, directly or indirectly, on Claim 1. Therefore, Applicants respectfully submit that Claims 2 - 3 are patentable over GB 1,166,961 for at least the same reason as Claim 1.

## **II. Rejection under 35 U.S.C. § 103**

Claims 1 - 5 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Hunt et al. in view of GB 1,166,961.

Applicants respectfully traverse this rejection for the following reasons.

Applicants respectfully submit that there is no motivation to modify the process disclosed in Hunt et al. or GB 1,166,961 so that the basic compound is used in an amount of about 0.3 mol or less per mol of the acidic compound. As described above, both Hunt et al. and GB 1,166,961 teach a process in which the amount of base exceeds the amount of acid. A person of ordinary skill in the art would not have been motivated to modify such amounts of a basic compound and acidic compound so that the basic compound is used in an amount of about 0.3 mol or less per mol or the acidic compound. Therefore, the process recited in Claim 1 is not obvious over Hunt et al. in view of GB 1,166,961.

Claims 2 - 5 depend, directly or indirectly, on Claim 1. Therefore, Applicants respectfully submit that Claims 2 - 5 are patentable over Hunt et al. in view of GB 1,166,961 for at least the same reason as Claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 10/665,006

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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